

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Donald A. SMALLEY et al.

Group Art Unit: To Be Assigned

Serial No: To Be Assigned

Examiner: To Be Assigned

Continuation of U.S. Serial No. 09/528,718

Filed: Herewith

For: SYSTEM FOR MANAGING REGULATED ENTITIES

PRELIMINARY AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

Before examination on the merits, please amend the above-identified application as follows.

IN THE SPECIFICATION:

Please **REPLACE** the paragraph beginning at page 2, line 1 (first full paragraph at page 2), with the following paragraph:

--Most environmental agencies have not established standards for data system design, thereby allowing program-specific data systems to be created entirely independently of each other, often without any reference to data management methods used elsewhere in the agency. Similar situations can be found in other types of regulatory agencies. One of the results of this splintering of responsibility for data management is that insufficient funds and technical expertise necessary for sophisticated systems have been applied to data management at regulatory agencies, resulting in a patchwork of databases developed and maintained by staff who are not computer professionals. This situation in turn severely hampers the ability of

agencies to establish and enforce cross-program consistency in policies and work processes, and it makes it very difficult to assemble all available information on a regulated entity.--

IN THE CLAIMS:

Please **AMEND** the claims in accordance with the following:

1. (ONCE AMENDED) A database structure, embodied on at least one computer accessible medium, for managing information on regulated entities by a regulating entity, said database structure comprising:

a primary data level identifying multiple regulated entities, optionally associable with a geographic location; and

a secondary data level identifying subject items of the regulated entities identified at said primary level, where the subject items include objects and activities subject to regulatory requirements comprising multiple media.

2. (AS UNAMENDED) A database structure as recited in claim 1, wherein said database structure further comprises at least one lower data level, below said secondary data level, to store detail information on imposition of regulatory requirements on the subject items via issuance of permits, monitoring operation of the subject items of the regulated entities to verify compliance with the regulatory requirements and issuance of enforcement orders to compel compliance with the regulated entities.

3. (CANCELED)

4. (AS UNAMENDED) A database structure as recited in claim 1, wherein the information in said primary data level identifies the regulated entities as one of

a fixed operation having a single geographic location associated therewith;
an occurrence having a single geographic location associated therewith;
a mobile operation that changes geographic location periodically; and
an organization responsible for transport of potentially hazardous materials, either in vehicles or conduits, across a geographic area.

5. (AS UNAMENDED) A database structure as recited in claim 1, wherein said database structure defines locations to store data related to work activity schedules, assignments and progress to date in a joint-usage database.

6. (AS UNAMENDED) A database structure as recited in claim 1, wherein the information managed by using said database structure is accessed by a regulatory agency, and defines permits for operations of the regulated entities, criteria for determining compliance with the permits and actions taken to enforce the permits, for all program areas over which the regulatory agency has jurisdiction.

7. (ONCE AMENDED) A database structure as recited in claim 1, wherein said secondary level comprises a record, and each record contains one of a single subject item and a list of subject item identifiers for related subject items.

8. (CANCELED)

9. (ONCE AMENDED) A database structure as recited in claim 1,
wherein the information managed by using said database structure is accessed by a regulatory agency, and

wherein said database structure defines for at least some of the subject items a set of characteristics that determine the regulatory requirements typically applicable thereto under all multiple media areas for which the regulatory agency is responsible.

10. (AS UNAMENDED) A database structure as recited in claim 9, wherein said database structure further comprises a requirements library specifying the regulatory requirements typically applicable to the subject items having a given set of characteristics, providing inspection checklist language corresponding to the requirements in fewer words, providing default descriptions of noncompliance for use when requirements are violated, and providing default corrective action requirements for use in enforcement orders addressing violations of requirements.

11. (AS UNAMENDED) A database structure as recited in claim 9, wherein said database structure defines locations to store data in a joint-usage database describing violations of the regulatory requirements applicable to at least one regulated subject item.

12. (AS UNAMENDED) A database structure as recited in claim 11, wherein said database structure defines locations to store data in the joint-usage database describing enforcement orders for the at least one regulated subject item.

13. (AS UNAMENDED) A database structure as recited in claim 1, further comprising a master regulatory profile of identification and descriptive data associated with each regulated entity identified at said primary level, not in data records associated only with permits.

14. (AS UNAMENDED) A database structure as recited in claim 1, wherein said database structure defines locations to store data in a joint-usage database describing field inspections and results of the field inspections.

15. (AS UNAMENDED) A database structure as recited in claim 1,
wherein the information managed by using said database structure is accessed by an environmental regulatory agency, and

wherein said database structure defines locations to store data describing pollutant releases in a joint-usage database.

16. (CANCELED)

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31. (CANCELED)

32. (CANCELED)

33. (ONCE AMENDED) A method of managing information of a regulating entity, comprising:

storing multiple media, multiple regulated entity regulating data related to work activity schedules, assignments and progress for regulating work to date in a joint-usage database; updating the data stored in the joint-usage database; and displaying the data stored in the joint-usage database to all regulating entity personnel having security clearance, regardless of the assignments for which the personnel are responsible.

34. (AS UNAMENDED) A method as recited in claim 33, wherein said method is performed by a computer program stored as a single executable program.

35. (ONCE AMENDED) A method as recited in claim 33, wherein said storing stores in the joint-usage database at least one master record representing one subject item regulated in a multiple media areas with detailed descriptions for each of the program areas, and

wherein said displaying displays the detailed descriptions for the one subject item on a single screen.

36. (AS UNAMENDED) A method as recited in claim 33, wherein the data stored, updated and displayed includes data describing pollutant releases of a regulated entity.

37. (AS UNAMENDED) A method as recited in claim 33, wherein the data stored, updated and displayed includes data describing violations of applicable requirements.

38. (ONCE AMENDED) A method as recited in claim 33,
wherein the data stored, updated and displayed includes data describing enforcement
orders, and

wherein said method further comprises preparing multiple media enforcement orders
for violations of requirements from different program areas and program-specific enforcement
orders.

39. (CANCELED)

40. (CANCELED)

41. (CANCELED)

42. (CANCELED)

Please **ADD** the following new claims 43-60:

43. (NEW) A method of managing information on regulated entities by a regulating
entity, comprising:

creating a joint-usage database for multiple media of the regulating entity and having a
primary data level identifying the multiple regulated entities, optionally associable with a
geographic location, and a secondary data level identifying subject items of the regulated
entities comprising the multiple media; and

performing, by the regulating entity, regulatory functions using the primary and
secondary data levels of the joint usage database.

44. (NEW) A method of managing information on multiple regulated entities by a
regulating entity, comprising:

creating a joint-usage database for multiple media and having a primary data level identifying the regulated entities, optionally associable with a geographic location, and a secondary data level identifying subject items of the regulated entities; and
generating, by the regulating entity, a permit from the joint-usage database.

45. (NEW) A method as recited in claim 44, wherein the permit comprises different information stored in discrete fields.

46. (NEW) A method of managing information on multiple regulated entities by a regulating entity, comprising:

creating a joint-usage database for multiple media and having a primary data level identifying the regulated entities, optionally associable with a geographic location, and a secondary data level identifying subject items of the regulated entities; and
generating, by the regulating entity, a regulatory inspection checklist from the joint-usage database.

47. (NEW) A method of managing information on regulated entities by a regulating entity, comprising:

maintaining a joint-usage database for multiple media and having a primary data level identifying the regulated entities, a secondary data level identifying subject items of the regulated entities and typical permit requirements for each of the subject items, the permit requirements for all subject items including permit requirements in a plurality of multiple media areas; and

displaying, by the regulating entity, the typical permit requirements for all of the subject items of a selected regulated entity.

48. (NEW) A method as recited in claim 47, further comprising selecting permit data from among the typical permit requirements in response to user input.

49. (NEW) A method of managing information on regulated entities by a regulating entity, comprising:

maintaining a joint-usage database for multiple media and having a primary data level identifying the regulated entities, a secondary data level identifying subject items of the regulated entities and regulating entity inspector checklist language for typical permit requirements for each of the subject items, the inspection checklist language for all subject items including inspector checklist language for the typical permit requirements in a plurality of program areas; and

displaying, by the regulating entity, the inspector checklist language for all of the subject items of a selected regulated entity.

50. (NEW) A method as recited in claim 49, further comprising selecting from among the checklist language in response to user input.

51. (NEW) A method of managing information on regulated entities by a regulating entity, comprising:

creating a joint-usage database for multiple media of the regulating entity and having a primary data level identifying the multiple regulated entities and a secondary data level identifying subject items of the regulated entities comprising the multiple media; and

performing, by the regulating entity, regulatory functions using the primary and secondary data levels of the joint usage database.

52. (NEW) A method of managing information on multiple regulated entities by a regulating entity, comprising:

creating a joint-usage database having a primary data level identifying the regulated entities, and a secondary data level identifying activities of the regulated entities; and
generating, by the regulating entity, an authorization from the joint-usage database.

53. (NEW) A method as recited in claim 52, wherein the authorization comprises a license.

54. (NEW) A method as recited in claim 52, wherein the authorization comprises an approval.

55. (NEW) A method as recited in claim 52, wherein the authorization comprises an approval letter.

56. (NEW) A method of managing information on multiple regulated entities by a regulating entity, comprising:

creating a joint-usage database having a primary data level identifying the regulated entities, and a secondary data level identifying activities of the regulated entities; and
generating, by the regulating entity, authorization to exercise power from the joint-usage database.

57. (NEW) A method of managing information on multiple regulated entities by a regulating entity, comprising:

creating a joint-usage database for areas of regulation of the regulating entity having a primary data level identifying the regulated entities, and a secondary data level identifying activities of the regulated entities; and

generating, by the regulating entity, authorization to exercise power from the joint-usage database.

58. (NEW) A method of managing information on multiple regulated entities by a regulating entity, comprising:

creating a joint-usage database having a primary data level identifying the regulated entities, and a secondary data level identifying activities of the regulated entities; and

generating, by the regulating entity, an enforcement action from the joint-usage database.

59. (NEW) A method for regulation of regulated entities, comprising:

maintaining information on the regulated entities, including a joint-usage database with the regulated entities at a primary data level and activities of the regulated entities at a secondary data level;

generating an authorization to exercise powers for at least one of the activities of each of the regulated entities by accessing the joint-usage database;

obtaining operational data from monitoring operation of the activities;

storing the operational data in the joint-usage database; and

enforcing each authorization based on the information stored in the joint-usage database.

60. (NEW) A system for regulation of regulated entities, comprising:

a memory unit storing information on the regulated entities, including a joint-usage database storing regulated entity identifiers at a primary data level, activities of the regulated entities at a secondary data level and operational data of the activities at a lower level below the secondary level;

a processor, coupled to said memory unit, generating an authorization to exercise powers for at least one of the activities of each of the regulated entities by accessing the joint-usage database in said memory unit;

an input unit, coupled to said processor and said memory unit inputting the operational data obtained from monitoring operation of the activities; and

an output unit, coupled to said processor, outputting the authorization.

REMARKS

This Preliminary Amendment is submitted to improve the form of the specification as originally-filed and to provide additional coverage for the invention.

It is respectfully requested that this Preliminary Amendment be entered in the above-identified application.


Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned "Version with Markings to Show Changes Made."

If there are any additional fees associated with filing of this Preliminary Amendment,
please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,
STAAS & HALSEY LLP

Date: April 19, 2001

By: _____


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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Please **AMEND** the paragraph beginning at page 2, line 1 (first full paragraph at page 2), as follows:

--Most environmental agencies have not established standards for data system design, thereby allowing program-specific data systems to be created entirely independently of each other, often without any reference to data management methods used elsewhere in the agency. Similar situations can be found in other types of regulatory agencies. One of the results of this splintering of responsibility for data management is that insufficient funds and technical expertise necessary for sophisticated systems have been applied to data management at regulatory agencies, resulting in a patchwork of [small,] databases developed and maintained by staff who are not computer professionals. This situation in turn severely hampers the ability of agencies to establish and enforce cross-program consistency in policies and work processes, and it makes it very difficult to assemble all available information on a regulated entity.--

IN THE CLAIMS:

Please **CANCEL** claims 3, 8, 16-32 and 39-42.

Please **AMEND** the following claims.

The remaining claims are reprinted, as a convenience to the Examiner, as they presently stand before the U.S. Patent and Trademark Office.

1. (ONCE AMENDED) A database structure, embodied on at least one computer accessible medium, for managing information on regulated entities by a regulating entity, said database structure comprising:

a primary data level identifying multiple regulated entities, optionally associable with a geographic location; and

a secondary data level identifying subject items of the regulated entities identified at said primary level, where the subject items include objects and activities subject to regulatory requirements comprising multiple media.

2. (AS UNAMENDED) A database structure as recited in claim 1, wherein said database structure further comprises at least one lower data level, below said secondary data level, to store detail information on imposition of regulatory requirements on the subject items via issuance of permits, monitoring operation of the subject items of the regulated entities to verify compliance with the regulatory requirements and issuance of enforcement orders to compel compliance with the regulated entities.

3. (CANCELED)

4. (AS UNAMENDED) A database structure as recited in claim 1, wherein the information in said primary data level identifies the regulated entities as one of
a fixed operation having a single geographic location associated therewith;
an occurrence having a single geographic location associated therewith;
a mobile operation that changes geographic location periodically; and
an organization responsible for transport of potentially hazardous materials, either in vehicles or conduits, across a geographic area.

5. (AS UNAMENDED) A database structure as recited in claim 1, wherein said database structure defines locations to store data related to work activity schedules, assignments and progress to date in a joint-usage database.

6. (AS UNAMENDED) A database structure as recited in claim 1, wherein the information managed by using said database structure is accessed by a regulatory agency, and defines permits for operations of the regulated entities, criteria for determining compliance with the permits and actions taken to enforce the permits, for all program areas over which the regulatory agency has jurisdiction.

7. (ONCE AMENDED) A database structure as recited in claim 1, wherein [each record at] said secondary level comprises a record, and each record contains one of a single subject item and a list of subject item identifiers for related subject items.

8. (CANCELED)

9. (ONCE AMENDED) A database structure as recited in claim 1, wherein the information managed by using said database structure is accessed by a regulatory agency, and wherein said database structure defines for at least some of the subject items a set of characteristics that determine the regulatory requirements typically applicable thereto under all [program] multiple media areas for which the regulatory agency is responsible.

10. (AS UNAMENDED) A database structure as recited in claim 9, wherein said database structure further comprises a requirements library specifying the regulatory requirements typically applicable to the subject items having a given set of characteristics, providing inspection checklist language corresponding to the requirements in fewer words, providing default descriptions of noncompliance for use when requirements are violated, and providing default corrective action requirements for use in enforcement orders addressing violations of requirements.

11. (AS UNAMENDED) A database structure as recited in claim 9, wherein said database structure defines locations to store data in a joint-usage database describing violations of the regulatory requirements applicable to at least one regulated subject item.

12. (AS UNAMENDED) A database structure as recited in claim 11, wherein said database structure defines locations to store data in the joint-usage database describing enforcement orders for the at least one regulated subject item.

13. (AS UNAMENDED) A database structure as recited in claim 1, further comprising a master regulatory profile of identification and descriptive data associated with each regulated entity identified at said primary level, not in data records associated only with permits.

14. (AS UNAMENDED) A database structure as recited in claim 1, wherein said database structure defines locations to store data in a joint-usage database describing field inspections and results of the field inspections.

15. (AS UNAMENDED) A database structure as recited in claim 1,
wherein the information managed by using said database structure is accessed by an environmental regulatory agency, and
wherein said database structure defines locations to store data describing pollutant releases in a joint-usage database.

16. (CANCELED)

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31. (CANCELED)
32. (CANCELED)

33. (ONCE AMENDED) A method of managing information of a regulating entity, comprising:

storing multiple media, multiple regulated entity regulating data related to work activity schedules, assignments and progress for regulating work to date in a joint-usage database;

updating the data stored in the joint-usage database; and

displaying the data stored in the joint-usage database to all regulating entity personnel having security clearance, regardless of the assignments for which the personnel are responsible.

34. (AS UNAMENDED) A method as recited in claim 33, wherein said method is performed by a computer program stored as a single executable program.

35. (ONCE AMENDED) A method as recited in claim 33,

wherein said storing stores in the joint-usage database at least one master record representing one subject item regulated in a [plurality of program] multiple media areas with detailed descriptions for each of the program areas, and

wherein said displaying displays the detailed descriptions for the one subject item on a single screen.

36. (AS UNAMENDED) A method as recited in claim 33, wherein the data stored, updated and displayed includes data describing pollutant releases of a regulated entity.

37. (AS UNAMENDED) A method as recited in claim 33, wherein the data stored, updated and displayed includes data describing violations of applicable requirements.

38. (ONCE AMENDED) A method as recited in claim 33,

wherein the data stored, updated and displayed includes data describing enforcement orders, and

wherein said method further comprises preparing [multimedia] multiple media enforcement orders for violations of requirements from different program areas and program-specific enforcement orders.

39. (CANCELED)

40. (CANCELED)

41. (CANCELED)

42. (CANCELED)

Please **ADD** the following new claims 43-60:

43. (NEW) A method of managing information on regulated entities by a regulating entity, comprising:

creating a joint-usage database for multiple media of the regulating entity and having a primary data level identifying the multiple regulated entities, optionally associable with a geographic location, and a secondary data level identifying subject items of the regulated entities comprising the multiple media; and

performing, by the regulating entity, regulatory functions using the primary and secondary data levels of the joint usage database.

44. (NEW) A method of managing information on multiple regulated entities by a regulating entity, comprising:

creating a joint-usage database for multiple media and having a primary data level identifying the regulated entities, optionally associable with a geographic location, and a secondary data level identifying subject items of the regulated entities; and

generating, by the regulating entity, a permit from the joint-usage database.

45. (NEW) A method as recited in claim 44, wherein the permit comprises different information stored in discrete fields.

46. (NEW) A method of managing information on multiple regulated entities by a regulating entity, comprising:

creating a joint-usage database for multiple media and having a primary data level identifying the regulated entities, optionally associable with a geographic location, and a secondary data level identifying subject items of the regulated entities; and

generating, by the regulating entity, a regulatory inspection checklist from the joint-usage database.

47. (NEW) A method of managing information on regulated entities by a regulating entity, comprising:

maintaining a joint-usage database for multiple media and having a primary data level identifying the regulated entities, a secondary data level identifying subject items of the regulated entities and typical permit requirements for each of the subject items, the permit requirements for all subject items including permit requirements in a plurality of multiple media areas; and

displaying, by the regulating entity, the typical permit requirements for all of the subject items of a selected regulated entity.

48. (NEW) A method as recited in claim 47, further comprising selecting permit data from among the typical permit requirements in response to user input.

49. (NEW) A method of managing information on regulated entities by a regulating entity, comprising:

maintaining a joint-usage database for multiple media and having a primary data level identifying the regulated entities, a secondary data level identifying subject items of the regulated entities and regulating entity inspector checklist language for typical permit requirements for each of the subject items, the inspection checklist language for all subject items including inspector checklist language for the typical permit requirements in a plurality of program areas; and

displaying, by the regulating entity, the inspector checklist language for all of the subject items of a selected regulated entity.

50. (NEW) A method as recited in claim 49, further comprising selecting from among the checklist language in response to user input.

51. (NEW) A method of managing information on regulated entities by a regulating entity, comprising:

creating a joint-usage database for multiple media of the regulating entity and having a primary data level identifying the multiple regulated entities and a secondary data level identifying subject items of the regulated entities comprising the multiple media; and performing, by the regulating entity, regulatory functions using the primary and secondary data levels of the joint usage database.

52. (NEW) A method of managing information on multiple regulated entities by a regulating entity, comprising:

creating a joint-usage database having a primary data level identifying the regulated entities, and a secondary data level identifying activities of the regulated entities; and generating, by the regulating entity, an authorization from the joint-usage database.

53. (NEW) A method as recited in claim 52, wherein the authorization comprises a license.

54. (NEW) A method as recited in claim 52, wherein the authorization comprises an approval.

55. (NEW) A method as recited in claim 52, wherein the authorization comprises an approval letter.

56. (NEW) A method of managing information on multiple regulated entities by a regulating entity, comprising:

creating a joint-usage database having a primary data level identifying the regulated entities, and a secondary data level identifying activities of the regulated entities; and

generating, by the regulating entity, authorization to exercise power from the joint-usage database.

57. (NEW) A method of managing information on multiple regulated entities by a regulating entity, comprising:

creating a joint-usage database for areas of regulation of the regulating entity having a primary data level identifying the regulated entities, and a secondary data level identifying activities of the regulated entities; and

generating, by the regulating entity, authorization to exercise power from the joint-usage database.

58. (NEW) A method of managing information on multiple regulated entities by a regulating entity, comprising:

creating a joint-usage database having a primary data level identifying the regulated entities, and a secondary data level identifying activities of the regulated entities; and

generating, by the regulating entity, an enforcement action from the joint-usage database.

59. (NEW) A method for regulation of regulated entities, comprising:

maintaining information on the regulated entities, including a joint-usage database with the regulated entities at a primary data level and activities of the regulated entities at a secondary data level;

generating an authorization to exercise powers for at least one of the activities of each of the regulated entities by accessing the joint-usage database;
obtaining operational data from monitoring operation of the activities;
storing the operational data in the joint-usage database; and
enforcing each authorization based on the information stored in the joint-usage database.

60. (NEW) A system for regulation of regulated entities, comprising:

a memory unit storing information on the regulated entities, including a joint-usage database storing regulated entity identifiers at a primary data level, activities of the regulated entities at a secondary data level and operational data of the activities at a lower level below the secondary level;

a processor, coupled to said memory unit, generating an authorization to exercise powers for at least one of the activities of each of the regulated entities by accessing the joint-usage database in said memory unit;

an input unit, coupled to said processor and said memory unit inputting the operational data obtained from monitoring operation of the activities; and

an output unit, coupled to said processor, outputting the authorization.